Training Material

TM 002/23

Revision of TP 006/17

EIGA COUPLINGS
Driver Training

EUROPEAN INDUSTRIAL GASES ASSOCIATION *AISBL*
AVENUE DE L'ASTRONOMIE 30 ⬩ B-1210 BRUSSELS
PHONE +32 2 217 70 98 ⬩ E-mail : info@eiga.eu ⬩ www.eiga.eu

DISCLAIMER

All technical publications of EIGA or under EIGA's name, including Codes of practice, Safety procedures and any other technical information contained in such publications were obtained from sources believed to be reliable and are based on technical information and experience currently available from members of EIGA and others at the date of their issuance.

While EIGA recommends reference to or use of its publications by its members, such reference to or use of EIGA's publications by its members or third parties are purely voluntary and not binding. Therefore, EIGA or its members make no guarantee of the results and assume no liability or responsibility in connection with the reference to or use of information or suggestions contained in EIGA's publications.

EIGA has no control whatsoever as regards, performance or non performance, misinterpretation, proper or improper use of any information or suggestions contained in EIGA's publications by any person or entity (including EIGA members) and EIGA expressly disclaims any liability in connection thereto.

EIGA's publications are subject to periodic review and users are cautioned to obtain the latest edition.

EIGA COUPLINGS

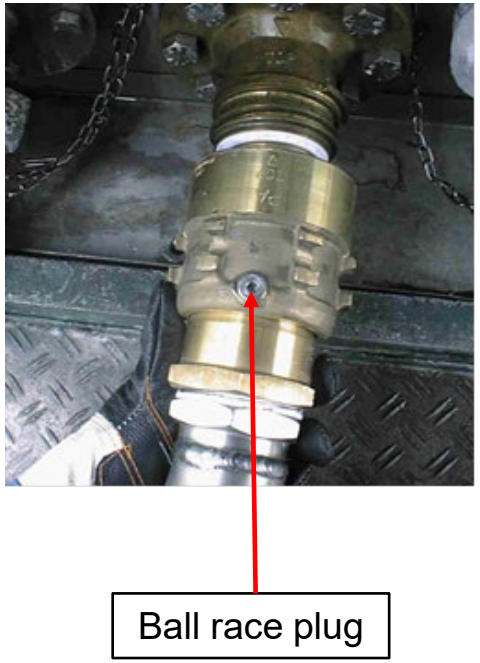
- The EIGA coupling is an industry standard for connecting transfilling hoses of production plant loading points to mobile equipment.
- There is an EIGA coupling for LIN, LOX, LAR, CO2 and N2O. Some examples :

Current design

Note: The current EIGA coupling incorporates design improvements to prevent misconnection.

CHECK OF COUPLING CONDITION

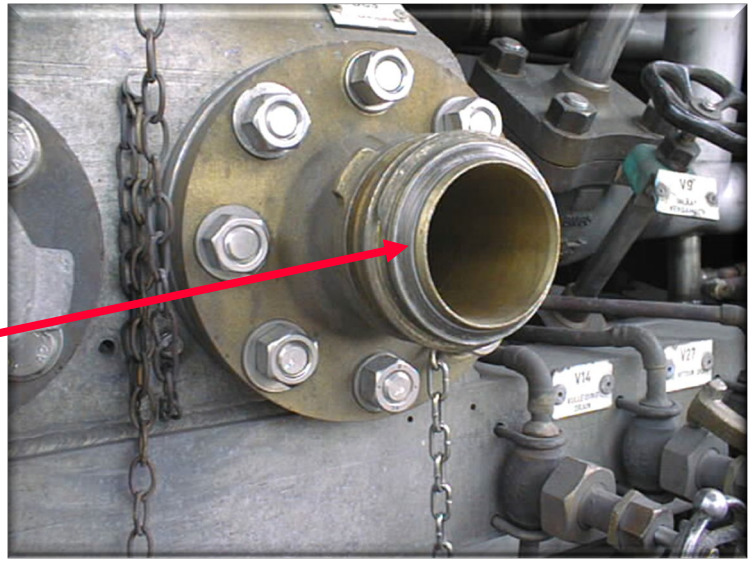
- Prior to each use, drivers shall inspect the coupling for obvious signs of damage
- Check that the ball race plug is in place and not loose
- If this plug is loose, don't start the fill, but report it to the responsible person
- Wear appropriate personal protective equipment



EIGA COUPLING SEAL

Connecting the trailer

1) Check the seal

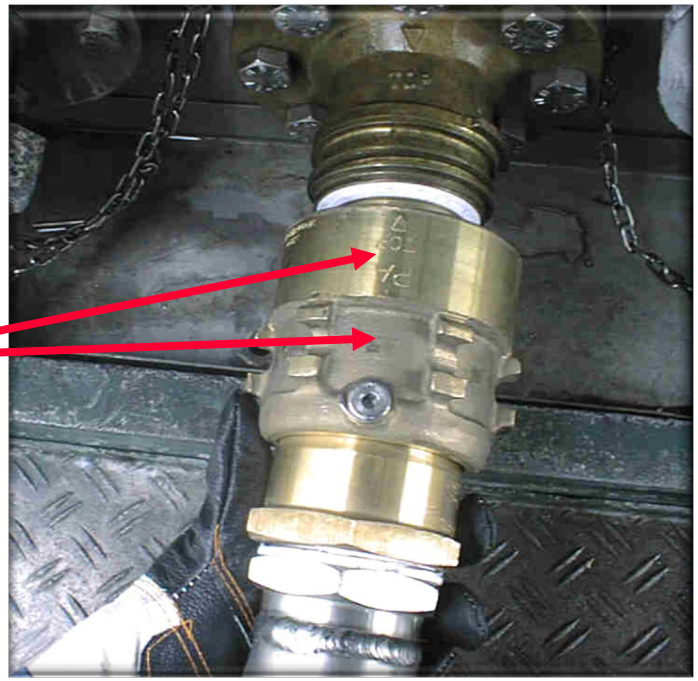


- Having removed the dust cap, check that the seal is present and free from obvious particles, contamination or damage
- The seal may be cleaned using approved materials
- Check for good condition of the thread

EIGA COUPLING CONNECTION

Connecting the trailer

2) Correct alignment
look at “TOP” marks



- While connecting, align the flexible hose coupling with the male fitting on the trailer by holding the nut with the plug at the top as shown in the photograph
- Then the lugs on the male fitting will pass easily through the slots in the code ring on the female nut

EIGA COUPLING CONNECTION

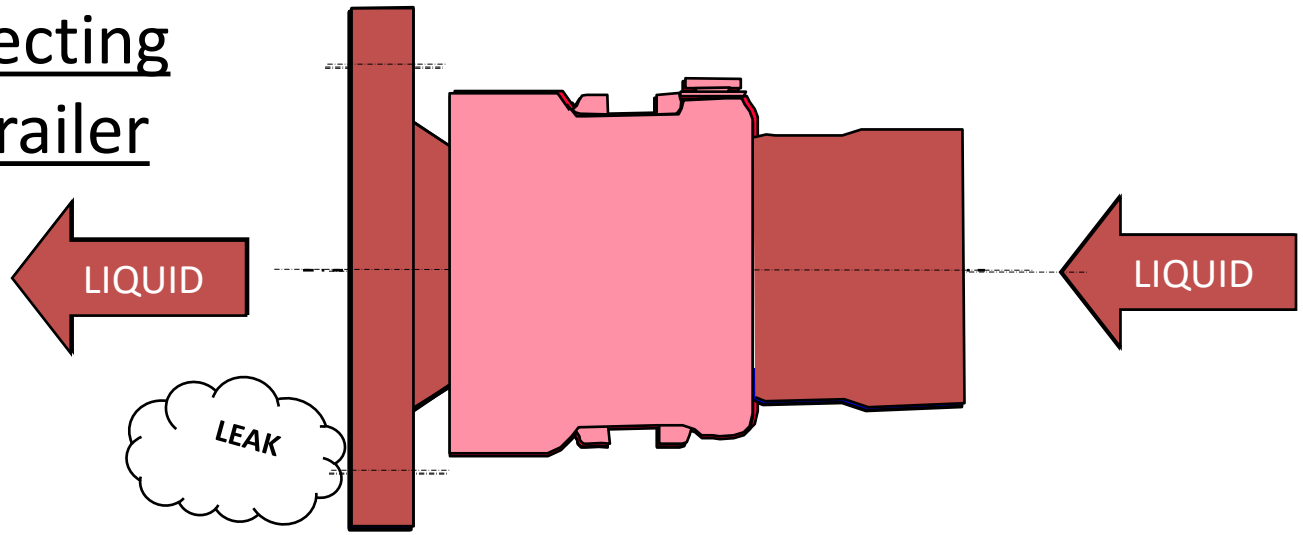
The more force used to tighten the nut, the more is required to undo it

(The nut continues to contract after the final tightening because,
unlike the other components, it is not in direct contact with the cold product)

Tighten the nut using only your hands at first **(DO NOT use the C-spanner yet)**

During cool down the two components, through which the gas flows, start cooling first

Connecting the trailer



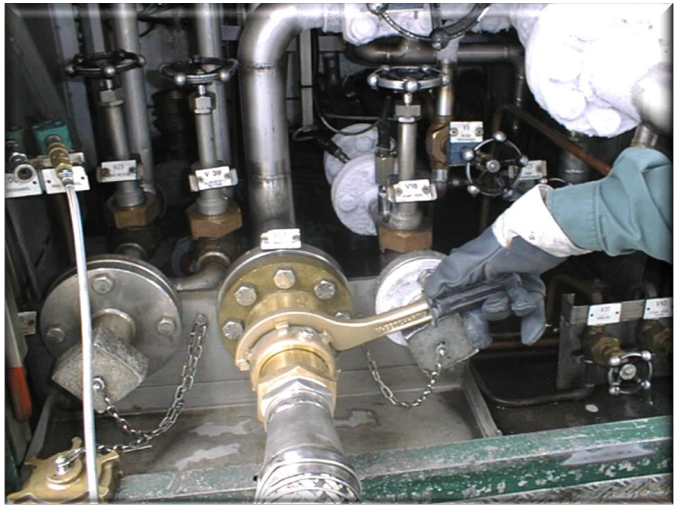
Timing is important for the second tightening. This should occur when the two components reach their coldest temperature and the nut begins to cool

This is when the liquid begins to flow through the unit
The unit will typically begin to leak at this stage

EIGA COUPLING CONNECTION

Connecting the trailer

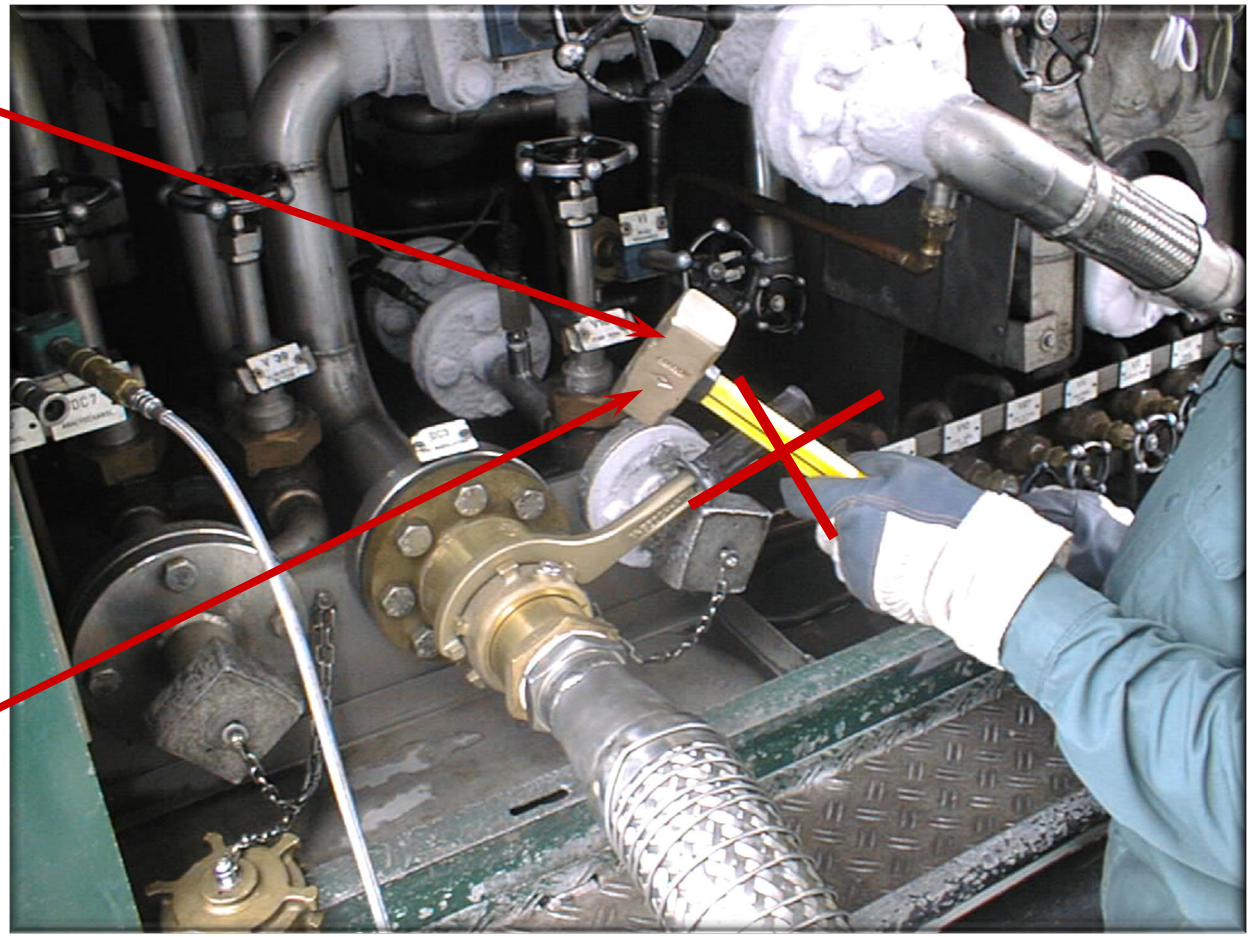
- For the second tightening, you should only apply sufficient force to remove any free movement in the coupling
- It should only be necessary to push down gently with your hand on the C-spanner



- Do not hit the spanner with your hand. - Do not hit it with anything
- Do **NOT** force the spanner in any way

EIGA COUPLINGS

NO!



NO!

NOT necessary, if you take note of the previous slides!

EIGA COUPLING DISCONNECTION

Disconnecting the coupling

The C-spanner is all that is needed with applying normal hand pressure

It might require more force if weather conditions are bad, or if you have over-tightened it

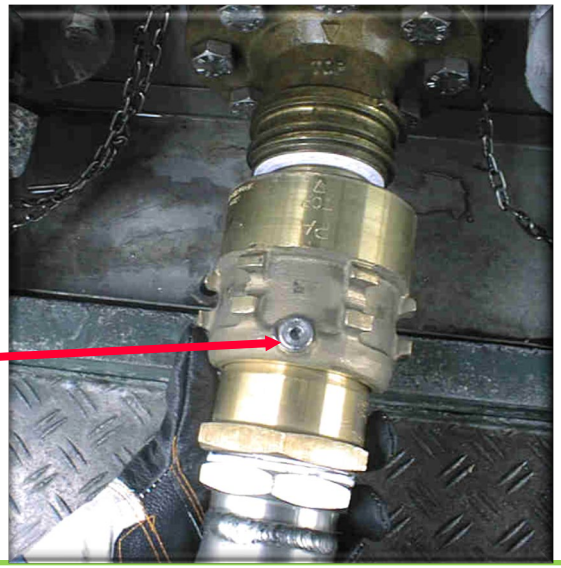
Remember - All unnecessary force inflicts damage to the ball bearings

EIGA COUPLING DISCONNECTION

Disconnecting the coupling

- Remember that after unscrewing, the lugs on the male fitting have to pass through the corresponding slots in the nut. The nut must be realigned accordingly before the final separation
- Do this by rotating the nut until the plug is in the top position
- Then pull the coupling apart

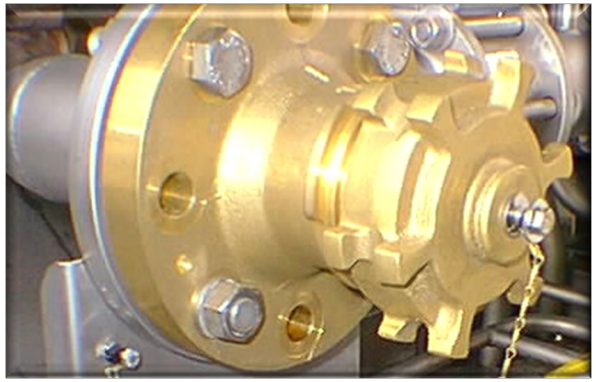
Ball race plug is in the top position

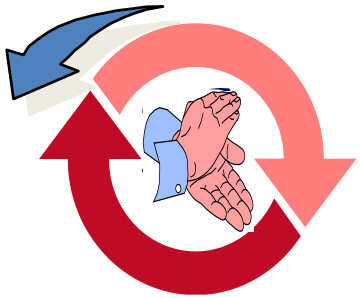


EIGA COUPLING DUST CAP

Fitting the dust cap

- The female dust cap will be warm and the male coupling cold
- After you have installed the dust cap, the male coupling will expand into the dust cap and tighten the thread
- Only tighten with your hand





Work Safely!

EIGA - European Industrial Gases Association AISBL
Avenue del'Astronomie 30 | B-1210 Brussels
Phone: +32 2 217 7098 | Fax: +32 2 219 8514
E-mail: info@eiga.eu | Website: www.eiga.eu